

Research Paper



Determinants of faculty research productivity: inputs to the development of the faculty efficacy tool

Jay Sandy C. Sabanal*^{ORCID}

*University of Nueva Caceres, Philippines.

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ABSTRACT

One of the measures of performance of institutions in higher education is research productivity. In the Philippines, the academic production is limited to a number of institutions that are well-equipped, the provincial universities are facing gaps in their funding, mentoring and infrastructure. National statistics demonstrate that the nation produces less of articles that are registered in Scopus compared to those of its counterparts in ASEAN, which increases the urgency of knowing what determines faculty activities. This paper has analyzed the determinants of faculty research output in Camarines Norte State College by survey research design focusing on a mixed research design. It set out to: (1) define and test the levels of personal engagement and institutional support; (2) test problem areas, coping strategies and how this can be better; (3) create a faculty research efficacy instrument. Validated surveys, interviews, and focus group discussions were used to collect data, and Braun and Clarke, six-phase thematic model, were used to analyze data using descriptive statistics. Results showed faculty involvement in research output and enhancement strategies was very high with a level of involvement in personal well-being and self-perceived research competence. The support received by the institution was moderate on average with mentorship, access of resources and incentives among the worst. Time limitations, lack of funding, time management, and administrative encumbrance, as well as lack of publication were challenges that faced faculty but time management, collaboration and peer support they resisted. These observations resulted in the Faculty Research Efficacy Measurement (FREM) - a ten domain diagnostic model meant to assist faculty in reflecting on their research skills and leading institutions towards specific reforms that would allow it to foster self-awareness, improvement, and a research culture that was of the quality in academia.

Corresponding Author:

Jay Sandy C. Sabanal

University of Nueva Caceres, Philippines.

Email: jaysandy.sabanal@unc.edu.ph

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1. INTRODUCTION

Faculty researchers are frequently faced with complex issues that are due to the combination of teaching, research and administration as well as the leadership of ethical and institutional environments. With this in mind, this paper aimed at describing and analyzing the extent of perceived engagement and institutional support to research productivity; examining the challenges, coping strategies and possibilities to improve research productivity and well-being; and design and develop a faculty research efficacy instrument to improve research productivity and well-being [1].

Current works illustrate the importance of institutional contexts as research productivity is not only determined by personal capacity but a profound aspect of the institution. Differences in communication between institutional research policies and faculty on the one hand coupled with poor technical research writing skills on the other tend to make participation in research not a priority in instances where incentives are being offered [2]. Such barriers and the increase in incentives can motivate faculty to engage in research, develop a dynamic research culture and advance faculty knowledge.

Although faced with such difficulties, there are numerous faculty researchers who have proven to be very effective in their jobs. Institutional support affects research self-efficacy- confidence in carrying out and publishing of research [3]. The efficacy of the teaching process is determined by the balance of research and teaching work and many faculty combine research with teaching to enhance student learning. Meanwhile, administrative efficacy presupposes the usage of time management in order to balance the organizational responsibilities with the academic ones [4].

Durability and flexibility are important to faculty success. Institutional support, funding and chance to get along are important in overcoming the viewpoints. The ethics are also critical as far as integrity and responsible research practice is concerned. Good environments can also enhance the productivity and well-being of the faculty members in countries supported by higher education institutions. The complexity of faculty life is marked by an ambivalent relationship between researches, teaching and administrative work and the need to manage these challenges by placing formal mentoring and recognition programs and workload restructuring would go a long way in improving efficacy and the performance of the institution [2].

Enhancing the research productivity and faculty health is crucial to enriching knowledge and maintaining academic institutions. Proper support measures such as administration support, access to funds, recognition and well established technology goes a long way in enhancing production. Faculty motivation is supported by incentives such as publications to encourage them to come up with quality research. The policies encouraging interdisciplinary, and international collaborations further expand the interest and impact of studies that place institutions at a competitive stance in academic landscapes [5].

2. RELATED WORK

Both individual engagement and institutional encouragement appear to persistently gain momentum on the nature of interaction gilding of the two elements in a literature on determining the productivity of faculty research. It has been proven that the impact of the institutional settings, resources and cooperation with colleagues [3] can impact research self-efficacy, the latter defined as one of the faculty confidence in conducting research and publishing it. Colleges that invest in formal mentorship and being a connected community are associated with greater faculty output and involvement [6].

Nationally, the Philippines is still struggling with structural inequalities in the productivity of research. There is evidence shown in [1] that the bulk of the nationally indexed research output is generated in a handful of higher education institutions, which is due to the ability to generate research opportunities by the independent strength of infrastructure, global connections, and access to high-impact

journals. The second EDCOM II added to the list of shortcomings thought of the country in the ASEAN context, citing a lack of funding, lack of mentors, and lack of incentive system, which is even more disproportionately true of the institutions in the region and severely resource-based ones.

In [6], the authors concluded that the relationship between the support systems and the research productivity is high and that the institutional culture and mentorship play a mediating role that such collaboration should be embedded in academic culture and not via another policy. On the same note, cited funding access, and strategy planning as the major contributors to scholarly output, and individual motivation, as a moderator. These results are in line with the finding of Palmiano [5] that low levels of faculty participation in Philippine HEIs still exists even with the formal research requirement, mostly attributed to a lack of infrastructure and mentors.

Faculty issues literature also coincides that time constraints, administrative overload and publication barriers to be significant barriers to productivity. According to [7] and Forward Pathway, Uncertainty in funding derails research planning in the long term, and [8], and [9] have both pointed out that bureaucratic culture in universities inhibits academic freedom and diverted academic focus towards administrative activities. The opportunity to acquire academic resources also proves to be a continuous equity concern, [10] documenting its limiting access to journals as a factor to faculty involvement in the production of global knowledge.

Coping research shows that great resilience is present in the faculty members. [11], [12], [13] are all certain that structured time management was related to increased academic self-efficacy and scholarly commitment. Additional ways to increase research visibility are through co-authorship and institutional partnerships, which have been reported by. This literature, together, points to the fact that individual resilience is admirable though institutional reforms that aim at nurturing sustainable research cultures are inevitable through institutional reforms which are aimed at mentorship, provision of resources and recognition.

3. METHODOLOGY

A mixed method type of study was employed in this research, where the study was conducted in a qualitative and quantitative manner and at the same time to be able to give both the contextual and measurable data in the definition of the trends and the context behind the faculty research output. A researcher constructed questionnaire validated by experts was used to find out the descriptive information of the faculties challenges, coping styles and perceptions. The subjects were faculty members who were actively involved in teaching, researching and administrative activities in all fields at Camarines Norte state college (CNSC).

The data collection consisted of quantitative data which could be analyzed through such descriptive statistics as mean, percentages and ranking whereas qualitative data were processed with the help of thematic analysis based on the 6-step model elaborated by Braun and Clarke. The analysis involved integration as both strands were triangulated and the analysis findings were used to develop the interpretive validity and achieve a deeper understanding of the research dynamics of the faculties. The summarized findings with indications of themes and challenges and possible solutions formed the basis of the designing of the Faculty Research Efficacy Measurement (FREM).

Surveys, interviews and focus group discussions were used to collect data with secondary analysis of institutional policies and research outputs added to supplement the analysis. All ethical measures were followed during the process of data collection and this involved informed consent of all the participants and anonymization of data to protect the anonymity of the participants as well as confidentially.

4. RESULTS AND DISCUSSION

4.1 Perceived Level of Personal Engagement and Institutional Support to Research Productivity

The level of personal engagement, as perceived by CNSC faculty researchers, showed that they were most interested in research output and productivity, and in enhancement strategies, both got the highest mean score and the top rank. Personal and behavioral factors and mental health and well-being, in

turn, were viewed with moderate levels of engagement, which indicates that there was the possibility to work on those levels. Also, self-understanding skills of research scored lowest, which regards a possible lack of confidence or competence. In general, although professors were devoted to academic achievements, the issue of their own well-being and perceived research abilities demanded specific attention that would allow them to be productive in the long term.

The faculty members tended to view institutional support to research productivity as medium in all aspects. The contributions of organizational structures and the management of workloads were considered as comparatively stronger supports, whereas the availability of resources, mentors, and recognition were considered as the weaker ones. This implied that existing systems are not inappropriate but instead, very specific and enabling support systems must be incorporated to maximally increase faculty research participation.

Table 1. Perceived Level of Personal Engagement

Components	Mean	Verbal Interpretation	Rank
Personal and Behavioral Factors	3.55	Moderate	2nd
Mental Health and Well-Being	3.28	Moderate	3rd
Research Output and Productivity	3.59	High	1st
Faculty Perspectives and Enhancement Strategies	3.59	High	1st
Self-Perception of their Research Skills	3.06	Moderate	4th

Notes: 4.41–5.0 = Very High; 3.81–4.40 = High; 2.21–3.80 = Moderate; 1.61–2.20 = Low; 1.0–1.60 = Very Low

As illustrated in [Table 1](#), the Perceived Level of Personal Engagement indicates that faculty researchers highest rated their research output and productivity and enhancement strategies (mean = 3.59, interpreted as High) as they felt strongly committed to generate and enhance scholarly work. On the contrary, individual and behavioral (3.55), mental health and well-being (3.28) and self-perception of research competencies (3.06) were all in the Moderate category and demonstrate area of vulnerability in perception of confidence, wellness and behavioral consistency. On the whole, the above data point to the fact that although faculty are very active in terms of research work and strategic enhancement, their own well-being and self-assured abilities have to be more supported on an institutional level, to ensure sustainable productivity and balance in the long term.

Table 2. Perceived Institutional Support to Research Productivity

Components	Mean	Verbal Interpretation	Rank
Institutional and Organizational Factors	3.58	Moderate	1st
Resource and Accessibility	2.86	Moderate	3rd
Capacity Building and Mentorship	2.63	Moderate	5th
Recognition and Incentives	2.82	Moderate	4th
Workload Management & Protected Time	3.02	Moderate	2nd

Notes: 4.41–5.0 = Very High; 3.81–4.40 = High; 2.21–3.80 = Moderate; 1.61–2.20 = Low; 1.0–1.60 = Very Low

As seen in [Table 2](#), the Perceived Institutional Support to Research Productivity shows that all the elements were rated in the moderate category, showing dissimilar yet evident support of the domains. The organizational and institutional issues were highest (mean = 3.58), which indicates that there is a relatively strong organizational policy and structure, and the next ones are the workload management and protected time (mean = 3.02), and there is a certain understanding of the need to balance the workload. Others however, have lower scores in access to resources (2.86), recognition and incentives (2.82), and particularly, capacity building and mentorship (2.63, lowest rank) showing that there are huge gaps in areas that are important in sustaining long term faculty engagement and growth.

In general, the discussion indicates that although there are organizational structures, lack of consistency in providing resources, incentives, and mentorship discourages full utility of faculty research,

which implies that there is a necessity to institute systemic reforms to enhance support systems beyond administrative frameworks.

The findings demonstrated that there was an evident interaction between individual interaction and institutional endorsement that determines the research yield of the faculty. The faculty reported a strong interest in research output and enhancement strategies, and moderate scores in personal and behavioral attributes, mental health and self-perceived research competencies, which corresponds to areas of weaknesses and risk at reducing productivity in the long-term. The rate of institutional support was always moderate, and organizational structures and workload management were considered as more powerful, yet mentorship, resource availability and incentives system were weak points.

Combined, these results imply that faculty commit and demonstrate resilience, but they are limited by institutional systemic deficits in their efforts. This is consistent with [6], who discovered that mentorship and institutional support can only be converted to increased productivity when part of collaborative cultures, and with who highlighted the importance of funding and strategic planning in the production. In the Philippine scenario, Palmiano [5] also found low-faculty involvement in research regardless of research requirement attributing it to lack of sufficient infrastructure and mentorship. On the whole, the moderate level of personal involvement and inequitable institutional reinforcements highlight the dire necessity of reforms aimed at enhancing mentorship and the supply of resources, incentives, and safe research time to develop a more empowering and long-lasting research culture.

4.2 Challenges, Coping Mechanisms, and Opportunities for Improvement

Faculty members faced a multi-faceted set of issues affecting their productivity in their research and general well-being in a changing world of higher education. Such issues are usually evident on both individual and institutional fronts such as a lack of time, research capabilities, mental health issues, administrative issues and lack of institutional support. Although faced with these challenges, faculty utilized diverse coping strategies- self-regulation and teamwork with peers, effective time management and career plans among others- to maintain their academic activities.

Table 3. Common Challenges Faced by Faculty Researchers in Conducting Research

Theme	Description	Narratives
Time Constraints	Difficulty balancing research with teaching, administrative duties, and personal responsibilities.	"Too many teaching loads," "Compressed work week," "Using personal time for research."
Funding Limitations	Lack of financial support and reliance on personal resources.	"No budget," "Expenses from own pocket," "Seek external funding," "Target low budget research."
Administrative Burden	Excessive paperwork and institutional procedures hinder research progress.	"Too much documentation," "Difficulty in processing PRs, PO, vouchers," "Heavy admin work."
Lack of Institutional Support	Limited encouragement, resources, and leadership from the institution.	"No support from the school," "Need for support services," "Supportive research environment."
Limited Access to Resources	Inadequate access to journals, databases, and research tools.	"No access to online journals," "Publishing in open access journals."
Skill and Capacity Gaps	Challenges in mastering research methodologies and tools.	"Need training in research," "Hard time learning and applying statistics."
Motivational and Emotional Strain	Emotional toll and need for resilience amid challenges.	"No motivation," "Remotivating oneself," "Research is fun but exhausting."

Publication Barriers	Difficulty publishing in high-impact or indexed journals.	"Difficulty publications under social sciences," "No specific achievement aside from publishing."
Recognition and Achievement Gaps	Limited acknowledgment or tangible outcomes from research efforts.	"Presented research but still facing challenges," "No specific achievement."
Ethical and Logistical Issues	Challenges in navigating ethical approvals and logistical planning.	"Ethics approval takes too long," "Hard to coordinate with participants."

Table 3 revealed that these themes indicate that faculty's researchers have major difficulties in carrying out research. Faculty members faced challenges on time because of bulky teaching schedules with additional administration responsibilities and fewer funding with personal resources to conduct research. Administrative overheads, weaknesses of the institutions and limited access to journals and tools support further burden the development and the skill gaps in terms of methodology and statistics underline the necessity of capacity-building. The emotional stress, motivational problems, and problems with publishing in indexed journals contribute to the complexity as well as the lack of recognition of the achievement and lags in ethical approvals. All these issues indicate that institution stress and effort are simultaneously counteracted by systemic and structural failures, which highlights the necessity of more robust institutional support, streamlined operations, and increased interventions to maintain research involvement and activity.

The literature validated the overlap of systemic hurdles that impair effectiveness such as time, financial constraints, administration, and poor institutional backing. Overload of teaching and bureaucracy kills creativity, and lack of funding or procrastination does not allow ambitious projects to be achieved [7]

The high levels of administrative inefficiency including too much paperwork and wastage of time in the procurement process distract the process of scholarly inquiry, and it is indicative of a managerial culture, which values accountability over academic freedom [8], [9]. In addition, limited access to journals and databases continues to add knowledge inequity in that faculty gets less exposure to global academic dialogue [10]. Not only do these issues decrease the quality of research, they also are counterproductive to the well-being and morale of faculty, and place local experiences into a wider global discussion on issues of governance, sustainability of resources, and international resource inequity.

Despite such adversities, the faculty have resort to coping strategies like time management, collaboration and sharing of resources which have made them to be resilient. However, the motivational and emotional strain is not met and the researchers explain the research paradox as reward and demand [14]. Additional contributions are further marginalized by contribution barriers and recognition differences and particularly in certain disciplines such as the social sciences, where structural inequality causes high-impact journals to be less seen [15]. Literature highlights that the failure of faculty efforts to be stalled up without proper mentorship, recognition systems, institutional scaffolding, and so on [16], [17]. The solution to these issues should be reforms aimed at facilitating the administrative procedures, diversification of funds sources, making funds more accessible, systematic capacity building and effective recognition.

4.3 Faculty Researchers' Coping Mechanisms

Faculty scholars work in stressful academic settings characterized by ongoing issues like shortage of funds, administration overburden, publication pressures and an emotional stress. These limitations notwithstanding, some of them are extremely adaptive, showing an array of coping strategies that enable them to continue their academic work and output. Such concepts like time management and cooperating with colleagues, finding a mentor and emotional resilience are not only personal determination but also the creative ways to institutional restrictions, to which faculty resort.

Table 4. Faculty Researchers' Coping Mechanisms

Final Theme	Definition	Representative Narrative
Time Management and Prioritization	Faculty structure time to balance research with other duties.	"I allocate specific hours each week for research, even if it means working weekends."
Collaboration and Peer Support	Faculty engage with peers and networks to share workload and gain support.	"We coordinate with colleagues to co-author papers and share data collection tasks."
Funding Adaptation Strategies	Faculty creatively address financial constraints through personal and external means.	"Due to limited funding, I often use free online tools and apply for small institutional grants."
Self-Motivation and Emotional Resilience	Faculty maintain emotional strength and motivation despite challenges.	"Despite setbacks, I stay motivated by focusing on the long-term impact of my research."
Mentorship and Guidance Seeking	Faculty seek help from mentors and institutional leaders to navigate research.	"I consult senior faculty for feedback on proposals and guidance on publication strategies."
Strategic Scheduling and Delegation	Faculty advocate for administrative support and task delegation.	"I requested reduced teaching load during peak research months to meet project deadlines."
Use of Tools and Institutional Resources	Faculty utilize tools and subscriptions to enhance productivity.	"I rely on institutional access to databases and software to streamline my literature review."
Growth Orientation and Community Impact	Faculty find fulfillment through personal growth and societal contribution.	"My research on local issues helps improve community practices and gives me a sense of purpose."

The themes on coping mechanisms identified among faculty researchers as depicted in [Table 4](#) are used to show the various strategies adopted by different faculty learners to handle the various demands of academic life. The given themes, including time management and prioritization, collaboration and peer support, funding adaptation, need to seek mentorship, in addition to emotional resilience, as a strategic timing, and utilizing institutional resources are all elements of how faculty balance between research and teaching, administrative responsibilities, and personal issues.

Probably the effectiveness of these coping mechanisms is also already referred in recent literature. Time management and prioritization are accentuated as important strategies, and research indicates that organization leads to academic self-efficacy and commitment [11], [12], [13]. Teamwork and collegiality also come out as key productivity factors as there is also a demonstration of more visibility and citation power when collaborating with a co-author or an institutional partner. Grants that fund adaptation plans show resilience, with faculty being creative in using open-source tools and small institutional grants to support research in a systemically constrained environment [18]. Besides, mentorship and peer collaboration proves beneficial to enhance professional development and confidence, and it aligns with the self-efficacy theory and supports the view that persists challenging projects.

4.4 Opportunities for Improvement

To attain high standards in academics, the institutions have to be keen to continuously spot and take interests in the opportunities that would facilitate faculty research activities. The themes offered in [Table 5](#) (including time allocation to mentorship) correspond to the actionable areas, where specific interventions can be used to achieve important changes. These are not themes in isolation as they have created a interdependent framework within which a culture of research flourishes.

Table 5. Opportunities for Improvement in Faculty Research

Final Themes	Definition	Narratives
Research Challenges and Constraints	Structural and skill barrier time, admin load, methods, publishing constrain research momentum.	"It is challenging since there is time constraint." "Difficulty in processing PRs, PO, vouchers...overwhelms our time." "Hard time learning and applying statistics." "Difficulty publications...Scopus indexed."
Motivation and Personal Growth	Research is embraced as continuous learning, critical thinking, and meaningful contribution.	"Continuous process of learning, adapting and growing." "Research work pushed me to think critically." "Challenging but rewarding...contributes to knowledge."
Institutional Support and Environment	Policies, leadership, manuals, incentives, and admin services are pivotal to thriving.	"Revisiting the Institutional research manual." "Supportive environment...policies and leadership...collaboration, mentorship." "Deload...honorarium...admin staff/student assistants."
Collaboration and Networking	Teaming, conferences, and networks polish outputs and expand capacity.	"More collaboration." "Attendance to conferences and trainings help polishing output." "Best to do it in group...assigning parts." "IFERP networking...reviewer/committee."
Achievements and Opportunities	Grants, publication, exposure, and flexible time create momentum and impact.	"Grant funded by DOST...presented local, international." "Publish at SCOPUS." "Free to conduct research on free time."

Faculty research productivity has been an ongoing theme in scholarship as indicated in [Table 5](#). Administrative overload as highlighted by [\[19\]](#) is an endemic problem which restricts protracted research participation, and would suggest optimization of the administrative processes including purchase requests and vouchers by digitization in order to release faculty time. [\[20\]](#) Note that quantitative projects require local training and practice, but even a substantial portion of the faculty has no sufficient methodological support, which makes it crucial that the institutions invest in continuing trainings and mentorship in quantitative and advanced methods. There are also publishing issues that are prevailing, observes that journals that are indexed in Scopus have lengthy review processes, low success rates and great formatting, that is why it is advisable to have the set research support offices to help guide the faculty on how to submit their work and complete the peer review process.

The work by [\[21\]](#) plays the role in confirming a thorough research self-efficacy scale, illustrating the significance of institutional support in literature review, data analysis and research ethics, in enhancing faculty confidence and productivity. Lastly, [\[22\]](#) concur with the argument that access to funding, tools and academic resources forms a very important determinant of research results and that institutions must focus resources on to effectively assist researchers.

The interpretation of table of personal engagement and table of institutional support illustrate that the faculty members are very active in terms of output and enhancement strategies in research but moderate in terms of self-well-being, behavioral and perceptions of research abilities. This skew is an indication of weaknesses that are consistent with the documented issues like time limitation, administrative overloads and lack of expertise in the fields of statistics and methodology. Evidence of coping strategies like time management, collaboration and pooling as well as mentorship seeking are a representation of the faculty being flexible but still not enough without structural reforms. Potential solutions, which include setting aside time to conduct research, increased access to funding, formalized mentorship and better network of collaboration are directly interventions that can help improve areas like personal engagement and institutional support noted as weak in both aspects.

4.5 Development of the Faculty Researcher Efficacy Tool

To enhance faculty-researcher interaction, high research output/productivity in Camarines Norte State College the Faculty Research Efficacy Measurement (FREM) was suggested. It was focused to translate the results of the analysis, which included information collected concerning the issues faced by faculty-researchers, how effective and supported they were to conduct research, and the experience they had, into a novel, empirically-based tool.

FREM tool was founded on 10 constructs based on the data of surveys and interviews. All domains were cross-referenced to items, and the scale of answers included a Likert-scale that included the following categories: -Very High, -Very Low. An example would be how the balance between teaching loads and the allocated research time was measured under the 'Time Constraints' domain and how the sufficiency and timeliness of the available resources were measured under the Funding Challenges one. The other domains included parameters like the clarity and accessibility of institutional policies, ease of acquiring resources, pressure to publish, their motivation levels, the quality of collaborative networks as well as availability of formal mentorship.

All the items in the questionnaire were crafted to act as a diagnostic as well as an improvement benchmark. To make improvements to the language and relevantness, piloting of the various questions in a small sample of faculty researchers was done to construct the detailed items. The quantitative part created scores which reflect the strengths and weaknesses in each area, with open-ended questions, which were buried within, making qualitative insights more detailed.

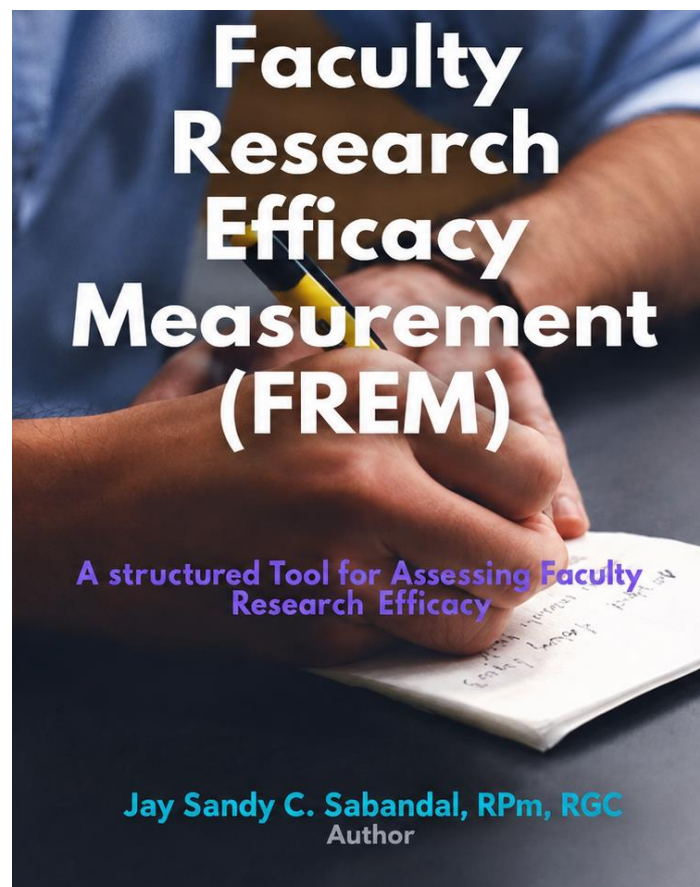


Figure 1. The Faculty Research Efficacy Measurement Manual

As shown in Figure 1 In line with the design of this instrument, a program of interventions was visualized to fill-in the gaps that were identified. To illustrate, in case the FREM tool identified that the previously known factors like 'Institutional Policies and Guidelines' and even the limitations of the Mentorship Program triggered critical issues, the design reflected certain suggestions on administration modifications and formatted mentorship programs, respectively. The interventions were planned not as a

standalone intervention but as a part of a comprehensive plan that connects a reform of the policies with training modules, techniques of resource management, and collaboration platforms.

**FACULTY RESEARCH EFFICACY MEASUREMENT (FREM)
(Questionnaire)**

Nos	Statements
1	I have the ability to identify significant research problems.
2	I am proficient in analyzing research data effectively.
3	I am skilled at writing research papers.
4	I have adequate access to research funding provided by my institution.
5	I have adequate tools, software, or equipment to conduct research.
6	I can easily access libraries, online journals, or other academic resources.
7	I am confident in fostering research collaborations within my institution and extending these partnerships to external organizations and networks
8	I engage in joint research activities and maintain professional networks that expand opportunities for scholarly productivity and impact.
9	I draw meaningful support from my professional network, which strengthens my capacity to achieve research objectives.
10	My institution's policies promote and encourage research activities.
11	I have sufficient time for research despite teaching or administrative duties
12	My institution provides training or workshops on advanced research skills
13	I am motivated to achieve my research goals despite challenges.
14	I feel efficacious in my research because my work environment encourages innovation and creativity.
15	I feel effective in my research abilities, enabling me to make significant contributions to the academic community.
16	I am confident in publishing research in high-impact journals.
17	Through my research, I generate insights and innovations that help solve real-world societal and practical challenges.
18	My past research outputs have significantly influenced my personal research efficacy.
19	I often face challenges balancing research with other professional responsibilities
20	Institutional bureaucracies hinders my research activities
21	Financial constraints hinder my confidence in conducting research.
22	I balance multiple responsibilities by carefully planning and prioritizing to maintain efficiency.
23	I set realistic deadlines and use scheduling tools to manage my workload
24	I set boundaries and avoid overcommitting to sustain a manageable and productive workload.
25	I practice self-care to boost mental clarity and research performance.
26	I follow healthy routines to support cognitive function and productivity.
27	I balance wellness and work, ensuring sustained research efficacy.
28	I have physical and mental resilience to do research.
29	Resilience and adaptability in my personal behavior enable me to remain productive in research challenges or setback
30	My personal habits, such as effective stress management and resilience, support my ability to conduct high-quality research.

Figure 2. The Faculty Research Efficacy Measurement (FREM) Questionnaire

The FREM is multidimensional in the yominey that faculty research engagement in the FREM takes (as shown in [Figure 2](#)). It started with the fundamental research skills and knowledge with an accent on problem identification, data analysis and scholarly writing as the basis of the academic inquiry. These were augmented with the availability of resources which meant that there is availability of funding, tools and academic materials to facilitate strict projects. Collaboration and networking were also paramount and reinstated the strength of partnerships, conferences and professional networks as a means to build opportunities and improve productivity.

The tool was also concentrated on the individual and contextual factors that sustain efficacy of research in the long run in addition to structural aids. Motivation and work environment included intrinsic drive, creativity and recognition, as compared to research output and impact as the measure of the visibility, relevance and impact of scholarly work. The areas of workload and time management, mental health and well-being, and personal, behavioral aspects were mentioned as areas with a focus on sustainable practices, resilience, and self-awareness.

**Faculty Research Efficacy Measurement
(Answer Sheet)**

Full Name: _____

Age: _____

Gender: _____

Highest Educational Attainment: _____

Academic Rank: _____

Designation: _____

Work Assignment: _____

This is a self-report questionnaire that aims to assess the faculty researchers perceived efficacy across critical domains, providing insights into strengths and areas for improvement.

Instruction: Please read each statement carefully and shade the circle that best represents how much you agree on how applicable the statement is to you. Use the scale below as your guide:

1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Disagree

Statement	1-SD	2-D	3-N	4-A	5-SA
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Statement	1-SD	2-D	3-N	4-A	5-SA
16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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25	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

S&K	AR	C&N	IS	M&E	RO&P	C&B	W&TM	MH&WB	P&BF

Figure 3. The Faculty Research Efficacy Measurement (Answer Sheet)

As depicted in Figure 3, the Faculty Research Efficacy Measurement (FREM) Tool is a big milestone towards making the research culture effective in institutions of higher learning. Designed to offer a structured and evidence-based approach to the process of evaluating the self-perceived efficacy of the faculty members, the tool is a response to the increased need to have instruments that would facilitate research engagement, but would also be valuable in terms of promoting reflection, development, and college support.

The FREM Tool has the principle of reflective utility beyond its technical design. It invites people who are part of the faculty to take a moment, review their practices, and acknowledge the mutual dependence of personal resilience, institutional support and academic productivity. By so doing, it creates a culture of constant improvement, in which self-awareness drives the change to action and institutional responsiveness. The combined outcomes give the administrators a guide to develop a faculty development program, differentiate mentoring programs and develop evidence-based and contextual-sensitive research policies.

5. CONCLUSION

The present research tested the research determinants of faculty’s research effectiveness in Camarines Norte State College in a concurrent mixed-method research design, a combination of quantitative surveys and qualitative interview involving the measurement of trends that can be quantified, as well as the personal experiences of the subjects. Results showed that although faculty showed high ratings in terms of research production and improvement approaches, moderate ratings in personal well-

being, behavioral categories, and perceived research competencies showed that there are enduring weaknesses. At the institutional level, organizational forms and workloads management belonged to the higher level, but the systems of mentorship, the resources availability and incentives were quite weak.

Faculty researchers successfully used adaptive coping skills, such as time management, collaboration, resource pooling, and mentorship seekers, to unfold in a maze of obstacles in which time limits and financial issues are contextual factors with relevant skill deficits and publication obstacles. Nonetheless, these measures, but indicative of personal resilience, were not adequate to long-term scholarly development of the sort that would not be supported by structural changes.

These problems are important institutional responses to the creation of the Faculty Research Efficacy Measurement (FREM). FREM is based on ten empirically derived domains and can be used as both a development and a diagnostic tool to help faculty evaluate their capability to conduct research and help institutions aim towards specific interventions. It is also advisable to institutionalize and make it long-lasting by developing faculty and having a special research support committee.

However, in the end analysis to improve the productivity of the faculty research, there is a twofold obligation to improve the individual capacities and to transform institutional assistance system. Through filling the gaps noted in the areas of mentorship, resource allocation, incentives, and safe time to conduct research, the main establishments of higher learning can develop a robust, empowered, and research-oriented scholarly culture that can make valuable contributions to the national development targets and international academic discussions.

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Author Contributions Statement

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Jay Sandy C. Sabanal	✓	✓	✓	✓		✓		✓	✓	✓	✓			

C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

I : Investigation

R : Resources

D : Data Curation

O : Writing - Original Draft

E : Writing - Review & Editing

Vi : Visualization

Su : Supervision

P : Project administration

Fu : Funding acquisition

Conflict of Interest Statement

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Informed Consent

All participants were informed about the purpose of the study, and their voluntary consent was obtained prior to data collection.

Ethical Approval

The study was conducted in compliance with the ethical principles outlined in the Declaration of Helsinki and approved by the relevant institutional authorities.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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BIOGRAPHY OF AUTHOR



Jay Sandy C. Sabanal , is a faculty member at the University of Nueva Caceres, Philippines, with an ORCID ID of 0009-0009-5516-9042. He specializes in educational research, faculty development, and institutional effectiveness. His scholarly interests encompass research productivity, mixed-method research design, and the development of diagnostic tools for academic capacity building. He has been actively engaged in research, teaching, and administrative roles, contributing to the advancement of research culture in Philippine higher education. Email: jaysandy.sabanal@unc.edu.ph